EPA

MONTROSE AND DEL AMO SUPERFUND SITES

LOS ANGELES COUNTY, CALIFORNIA | VOLUME 2, NUMBER 4 | MAY 1995

Results of Recent 204th Street Sampling Activities

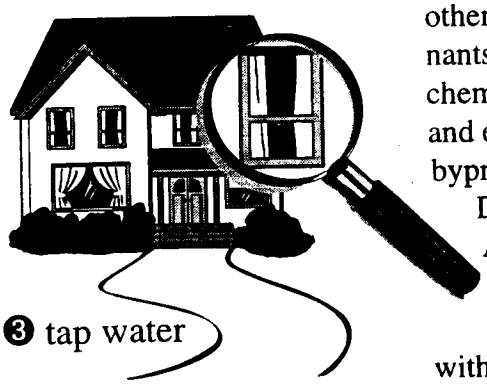
INTRODUCTION

This fact sheet explains how the U.S. Environmental Protection Agency (EPA) performed sampling activities in the homes and yards along West 204th Street, discusses the results, and describes how EPA will respond to the findings.

After residents expressed fears about possible contamination, the EPA completed a number of sampling programs in the homes and yards within the temporary relocation zone along West 204th Street. The sampling was conducted during the summer of 1994. Four distinct types of sampling were performed:

❶ indoor air

❷ indoor dust



❸ tap water

❹ soil

Table I summarizes EPA's sampling findings. A detailed explanation of each test and its results follow. The map on page three (Figure 1) identifies the homes within the study area.

Table 1: Sampling Results Summary

TEST	POSSIBLE CONTAMINANTS	RESULTS
Indoor Air	Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs)	Two out of 25 homes showed benzene slightly above EPA's health-based level
Indoor Dust	DDT	DDT was found in 22 out of 25 homes
Tap Water	VOCs, SVOCs, Pesticides	A low level of toluene was found in one home
Soil	DDT	A DDT contaminated fill area was identified

INDOOR AIR SAMPLING

■ The EPA tested indoor air samples in August and September 1994 at each of the 25 residences for volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs). EPA wanted to determine whether contaminants from Montrose and Del Amo are present in these homes at levels higher than other locations in the Los Angeles area, and to determine whether the contaminants pose any health concern. Some of these compounds represent classes of chemicals that are known or suspected carcinogens (cancer causing chemicals) and evaporate into vapors fairly easily. Such compounds may be the byproducts of the synthetic rubber manufacturing process that occurred at the Del Amo Superfund site from 1942 to 1972, and currently exist in the Del Amo waste pits or the DDT production at the Montrose Superfund site.

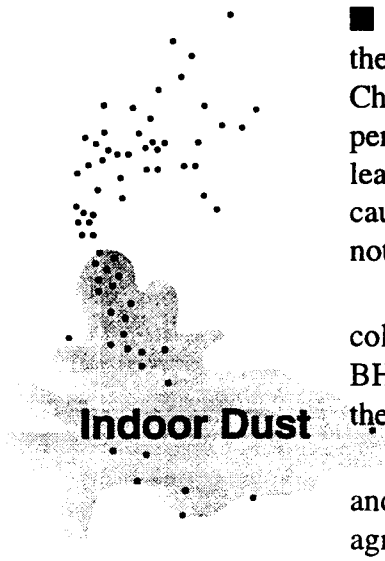
Indoor air samples were collected and analyzed to determine levels of individual VOC and SVOC contaminants. The EPA compared the results with contaminant levels found in other homes in the Los Angeles area in previous EPA-sponsored studies, or to acceptable contaminant levels developed by EPA health experts. These comparisons help determine whether the

VOC and SVOC levels found in the homes are impacted by the Del Amo site and whether an additional evaluation of potential health impacts is necessary.

Indoor Air Sampling Results

■ Two of the 25 homes sampled suggested levels of the VOC benzene slightly above EPA's health based trigger level (see Figure 1). No other homes indicated elevated levels of any of the VOCs or SVOCs of concern. Based on the results of recent EPA air and soil gas sampling at the Del Amo waste pits, we do not believe that the benzene is from the pit area. Benzene is found as a contaminant in the groundwater due to leaching of contaminated soils on the Del Amo site and is a commonly-found chemical in households. Common indoor sources of benzene include petroleum-based cleaning solvents, paint and paint removers, spray deodorants, furniture polish, particle board, cigarette smoke, car or truck emissions from attached garages, and gas appliances such as furnaces. The EPA will conduct a second round of sampling in these two homes in an attempt to identify and remove the source of benzene. This sampling will occur early this summer.

Indoor Dust Sampling



■ The EPA collected a sample of dust from each of the 25 homes and tested the sample for the presence of the pesticides DDT and BHC. The Montrose Chemical Corporation manufactured DDT from 1947 to 1982. During this period, airborne DDT dust from the Montrose operation was potentially released into the surrounding community. DDT is a probable human cancer causing compound that breaks down very slowly in the environment and does not easily evaporate.

Dust samples were taken from locations where dust was most likely to collect over time such as in attics. The samples determined whether DDT and BHC were present in the dust and did not measure the actual concentration of the contaminants.

DDT and BHC have been detected in the dust of other homes in the LA area and nationwide, and are potentially due to historic mosquito abatement and agricultural application. Historically, DDT was the most widely-used pesticide in the U.S. until its use was banned by the EPA in 1972. However, because of historic aerial dispersion from the Montrose Chemical plant, it is possible that levels of DDT and BHC are higher in areas near the plant site.

Dust Sampling Results

■ Dust sampling in the homes indicated that DDT is present in dust in 22 of 25 sampled homes (see Figure 1). The EPA will follow up this initial sampling effort by steam cleaning all homes in the relocation zone and then performing confirmation dust sampling to insure that the health-based Action Level of 26 ppm for DDT in dust is not exceeded in living areas. Samples of carpet dust will be collected using a specialized vacuum sampler. The samples will be analyzed to determine the concentration of DDT in the carpet dust. If a sample exceeds the Action Level of 26 ppm, the process of cleaning and sampling will be repeated until the Action Level is no longer exceeded. Residential steam cleaning and confirmation sampling will begin early this summer.

SAMPLING ACTIVITIES ON WEST 204TH STREET

FIGURA 1: ACTIVIDADES DE ESTUDIOS SOBRE LA CALLE 204TH

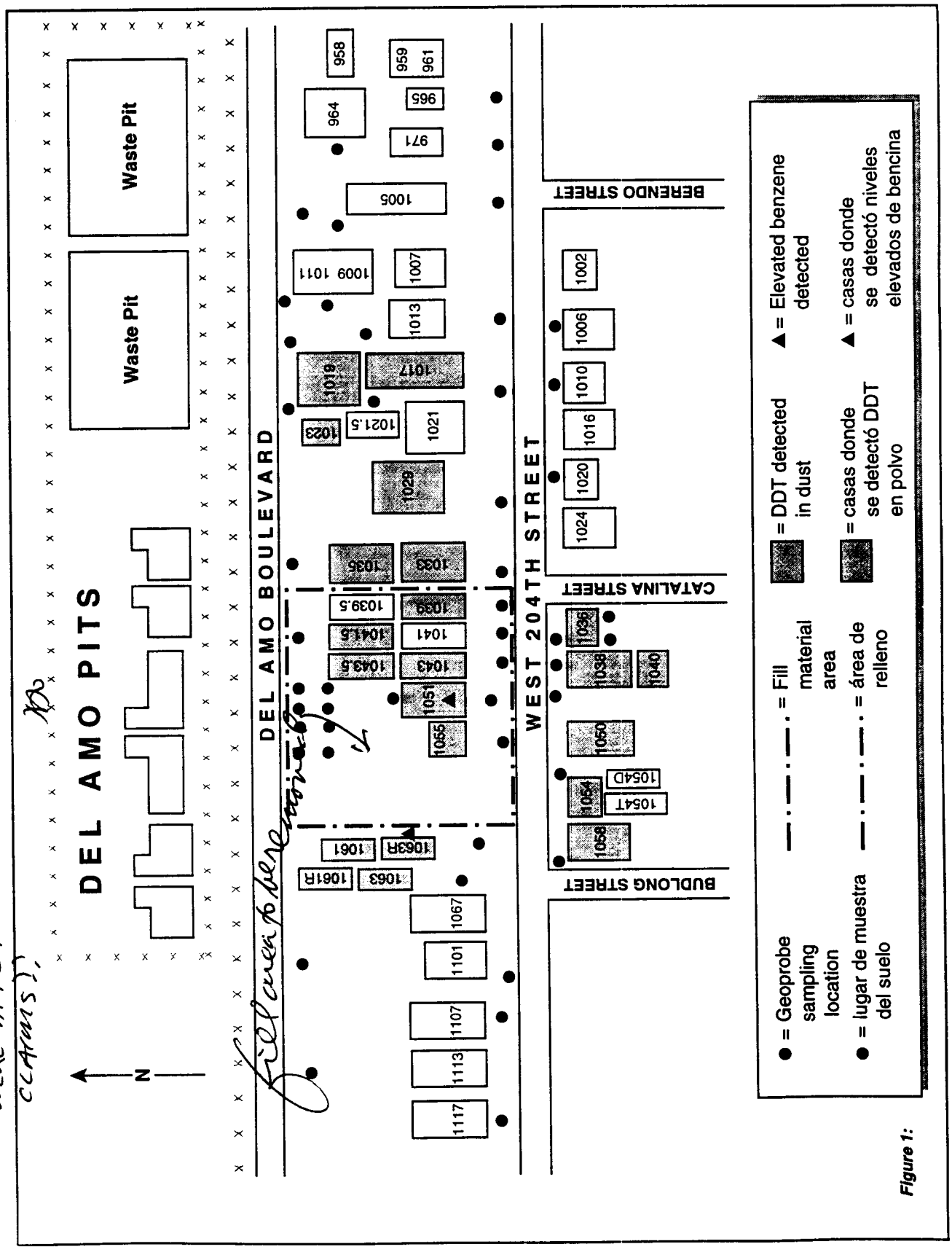
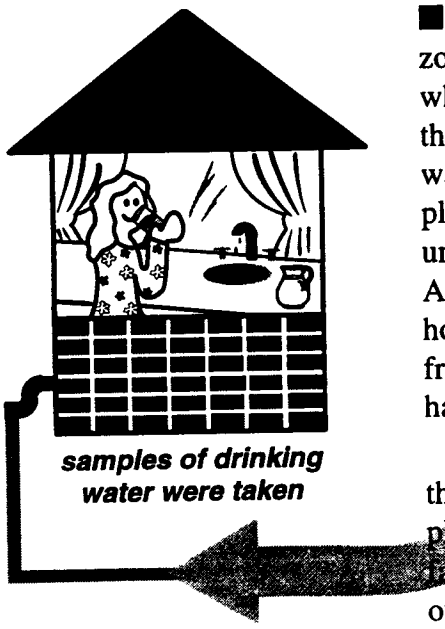


Figure 1:

Tap Water Sampling



■ The EPA sampled tap water from the 25 homes in the temporary relocation zone along West 204th Street. The goal of the sampling was to determine whether contaminants (VOCs, SVOCs, and pesticides including DDT) from the Del Amo and Montrose Superfund sites have migrated into the drinking water. The Dominguez Water Company conducted additional courtesy sampling of the tap water to determine if copper or lead is in the drinking water at unsafe levels. These contaminants are not related to the Montrose and Del Amo Superfund sites, but can be found in drinking water due to leaching from homeowner's pipes. Tap water is piped into the community from areas away from the sites, and so it was unlikely that Superfund site contaminants would have reached tap water.

Samples were collected from the kitchen faucet in each home because it is the most likely source of water used for human consumption. Before sampling, any water filtration systems or rubber or plastic attachments on the faucets were disconnected or removed. Water was allowed to stand in the pipes overnight before sampling, to test the belief that Superfund site contaminants may have migrated into the drinking water system. Tap water samples were first collected for copper and lead analysis, followed by samples taken for volatile organic analysis, and finally those for semivolatile organic and pesticide analysis.

VOC, SVOC, and Pesticide Results

■ The EPA did not detect VOC, SVOC or pesticide contaminants related to the Montrose or Del Amo Superfund sites in the drinking water on West 204th Street except in one residence. In one sample, toluene was detected at 0.08 parts per billion (ppb). This is well below the EPA's safe drinking water standard of 100 ppb for toluene. We have no indications that the toluene is from Montrose or Del Amo. It is likely a laboratory contaminant. No other contaminants were detected at unhealthy levels in the tap water.

Copper and Lead Sampling Results

■ No copper or lead was detected in the majority of the residences. Samples from four of the residences indicated concentrations of lead ranging from 0.007 to 0.0013 parts per million (ppm). Samples from 10 of the residences indicated concentrations of copper ranging from 0.05 to 0.32 ppm. All samples were below the safe drinking water standards for lead (0.015 ppm) and copper (1.3 ppm).

Soil Sampling

■ Based on the EPA's previous discovery and partial excavation of DDT-contaminated fill in the yards of two residences along West 204th Street, we conducted an extensive soil sampling program beginning in late July 1994. The primary goal of the sampling was to define the extent and nature of the DDT contaminated fill area along West 204th Street near the Del Amo Superfund site. Rather than being carried in the air such as dust, this fill is believed to have been trucked in from the Montrose Site to fill in natural depressions or low areas that existed before houses were built in the area. The extent of the fill was important because DDT was only found in the fill, rather than in the native soil. A second goal of the soil sampling program was to perform additional analysis for possible VOCs and SVOCs in the neighborhood soil that may have originated at the Del Amo Site.

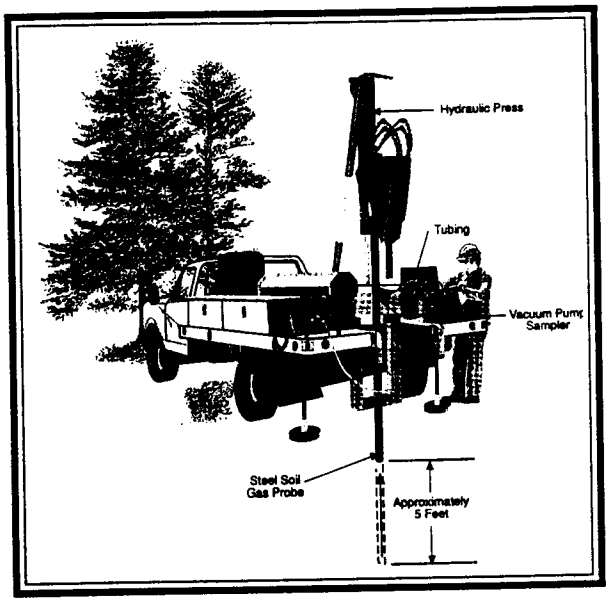


***Figure 2:** Geoprobe equipment used to collect soil samples.*

The soil sampling program used truck-mounted hydraulic sampling equipment called a *Geoprobe*. The Geoprobe allowed the EPA to collect numerous samples to depths of up to 19 feet along West 204th Street. A total of 232 soil samples were collected with the Geoprobe from 51 different locations in the yards of 28 properties. Samples were taken in the front and back yards along the north side of West 204th Street, and from the front yards along the south side of the street.

The samples were visually examined to determine whether they contained fill material like that previously found in the material excavated from the two yards on West 204th Street. The samples were chemically analyzed for DDT and BHC (contaminants related to the Montrose Superfund site), and for volatile and semivolatile organic compounds (contaminants potentially related to the Del Amo Superfund site).

DDT-Contaminated Fill Area Results

■ Based on visual observation and laboratory analysis, the EPA believes the DDT contaminated fill is contained within six adjacent residential properties on West 204th Street. The EPA has designated the identified DDT contaminated fill area for a removal action (indicated on Figure 1). The EPA has chosen to complete the excavation and off-site disposal of DDT contaminated fill contained within the six properties. The EPA will remove all soil contaminated above 26 ppm DDT in the fill area.

VOC and SVOC Contamination Results

■ The EPA did not detect VOCs at any of the sampled properties. SVOC results indicated low concentrations of certain semivolatile compounds in the DDT contaminated fill area. All SVOC concentrations were below 5 ppm, less than the health based level of concern.

For More Information

If you would like more information, or have questions about activities at the Del Amo or Montrose sites, please contact the following people:

Jeff Dhont
Montrose Project Manager
(415) 744-2363

Janet Rosati (H-7-1)
Del Amo Project Manager
(415) 744-2403

Jim Vreeland (H-7-1)
Del Amo/Montrose Project Manager
(415) 744-2395

Andy Bain (H-1-1)
Community Relations Coordinator
(415) 744-2185
(800) 231-3075

Paula Bruin (E-2)
Media Contact
(415) 744-1587

or call EPA's
TOLL-FREE MESSAGE LINE:
1•800•231•3075

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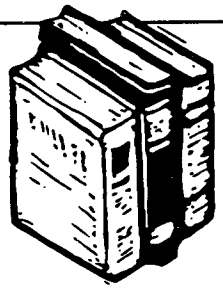

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(310) 618-5959

U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street (H-1-1)
San Francisco, CA 94105
Attn: Andy Bain

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Superfund Workshop
Remedy Selection Process
Wednesday, May 24, 1995
6:00 p.m.
Residence Inn, Del Amo Room
3701 Torrance Blvd., Torrance
(near the corner of Hawthorne Blvd.)

Jornada de Superfund Proceso de Seleccion del Plan para Limpiar el Sitio Contaminado
miercoles 24 de mayo, 6 p.m.
Residence Inn, Sala Del Amo
3701 Torrance Blvd., Torrance
(cerca de la esquina de Hawthorne Blvd.)

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